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Cocorino

NATIONAL FOREST

ARIZONA

U.S. DEPARTMENT OF AGRICULTURE ★ FOREST SERVICE - SOUTHWESTERN



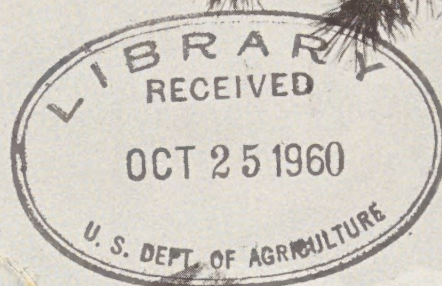
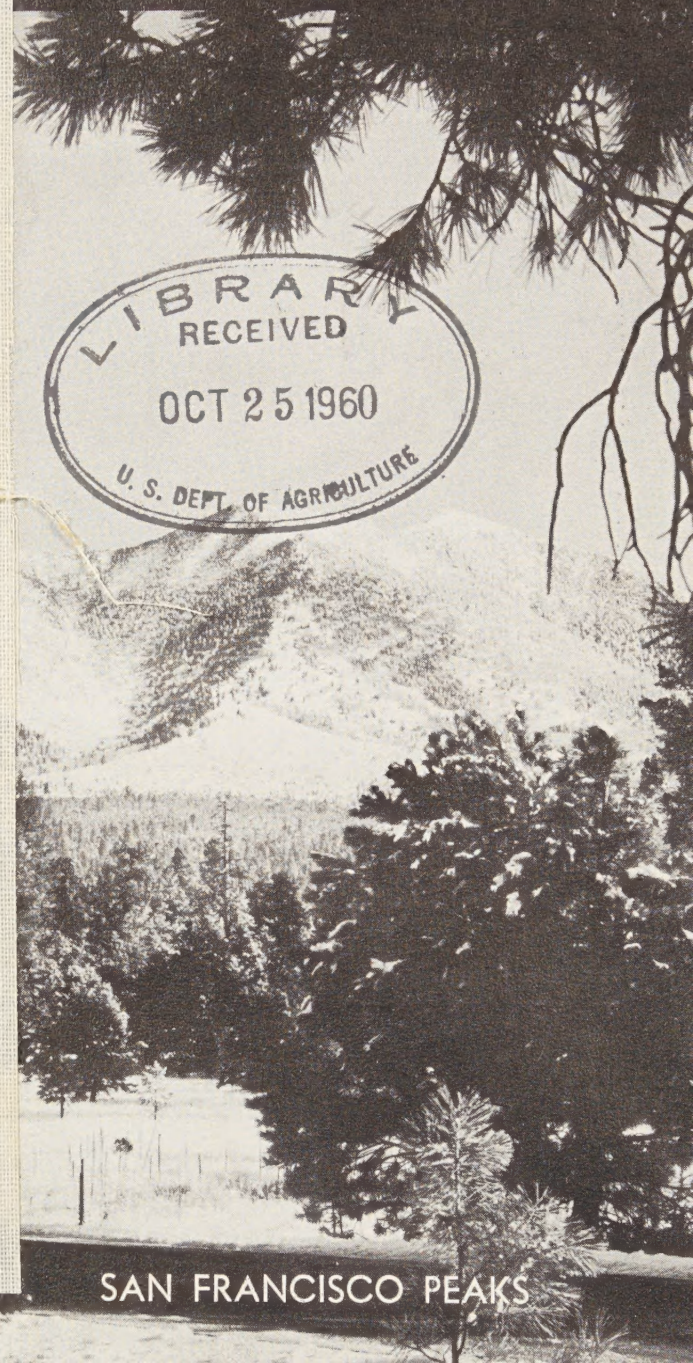
SAN FRANCISCO PEAKS

Cocorino

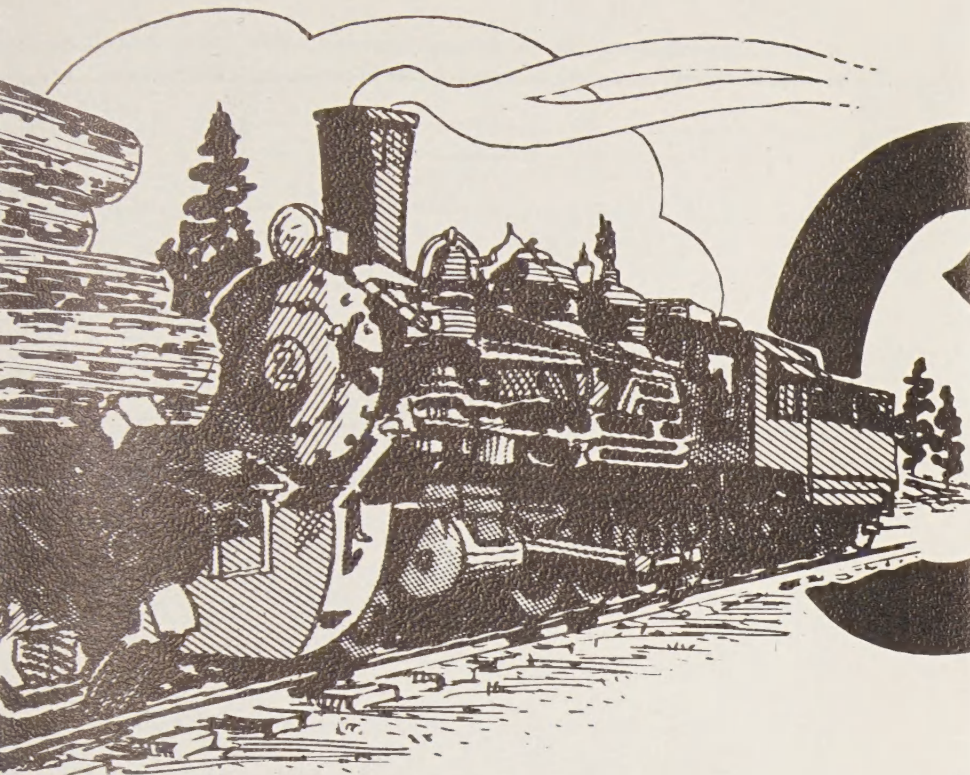
NATIONAL FOREST

ARIZONA

DEPARTMENT OF AGRICULTURE ★ FOREST SERVICE - SOUTHWESTERN REGION



SAN FRANCISCO PEAKS



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Coconino NATIONAL FOREST

IN ARIZONA'S SCENIC HIGH COUNTRY

Welcome to the Coconino, 1,800,000 acres of scenic National Forest in northern Arizona's ponderosa pine country. This beautiful, productive National Forest belongs to you, the American people, and is administered for you by the Forest Rangers of the Forest Service, U. S. Department of Agriculture, for "the greatest good of the greatest number in the long run." The Coconino National Forest is a rich heritage of timber, grazing, wildlife, recreation and water producing land, dedicated to the sustained yield of its multiple resources—for the maximum benefit to you the citizen.

Coconino comes from Kohonino, the Havasupai Indian name for a tribe which once inhabited the area. The Coconino National Forest stretches from the desert and irrigation country below Camp Verde to the icy 12,000 foot cones of the San Francisco Peaks, from the wild grandeur of Sycamore Canyon Primitive Area on the west to the timbered lake country east of

Mormon Lake. It contains the full length of spectacular Oak Creek Canyon, including the flaming red-rock cliffs around Sedona, one of the most popular fishing and recreation areas in the state.

The Coconino National Forest also encompasses a large timbered portion of the Colorado Plateau. This section is an irregular table-land of pine forest some seventy-five miles long and a third of that wide. Here are stands of commercial timber valued at \$50,000,000—supporting an important logging and lumber economy in northern Arizona. Here roam elk, antelope, and mule deer, attractive to hunters, wildlife photographers, and thousands of other interested Americans. Here graze the bulk of the 35,000 sheep and cattle which make use of the National Forest range, producing beef and wool for a growing America. The plateau is for the most part gently rolling terrain at about 7000 feet elevation, cut here and there by deep rugged canyons; and

along the southern and western edges the plateau drops off abruptly into lower country along the great cliff known as the Mogollon Rim. Dominating the whole area are the towering San Francisco Peaks, four graceful volcanic cones rising thousands of feet above Flagstaff, their flanks clothed in pine, fir, and aspen forests up to where the peaks themselves thrust out above timberline.

The Coconino National Forest—with several feet of snow on the plateau in winter, and almost daily rainstorms in late summer—is a vital source of water for Arizona. The streams and underground basins fed by the Coconino provide domestic water supplies for Flagstaff, Winslow, and in part for the Phoenix-Salt River Valley area through the Verde and East Verde Rivers. The lesser northern flow of the Coconino goes into the Little Colorado River and thence into the Colorado above Grand Canyon. Water in the desert is a value beyond price—for cities, farms, power,

recreation lakes, industry, and fishing streams; and most of the water in the West comes from the high protected watersheds of your National Forests.

You may come to the Coconino to view the wondrous cliffs of Oak Creek Canyon in summer, to fish for trout in the shadows of the Mogollon Rim. Or camp out in one of the many campgrounds built and maintained by the Forest Service. You may come to have a family picnic where it's cool among the big trees. Your pleasure may be hunting elk or deer on the big plateau in November. Or stalking turkey with gun or camera. Perhaps you just like to drive up the San Francisco Peaks to see the aspens turn gold in the fall; or you may be putting on skis for a sweep down the white slopes of the Snow Bowl later in the year. Whatever your tastes, chances are you'll enjoy the Coconino National Forest and be proud to be a stockholder in this publicly-owned firm.



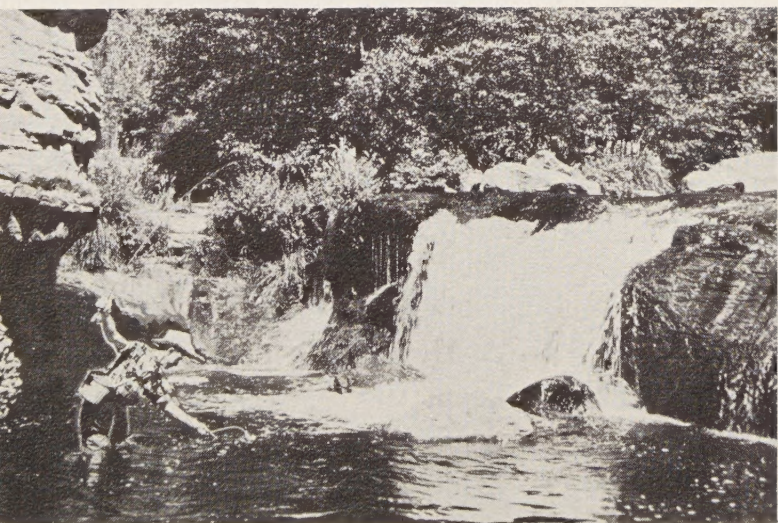
F-482920

- Camping is popular on the Coconino.



F-482422

- Great sport at Arizona Snow Bowl.



- Trout fishing in Oak Creek.

RECREATION

More than half a million people visit the Coconino National Forest each year to enjoy its scenic splendors, its cool forest environment, and the many attractive camp and picnic sites developed by the Forest Service. Major highways like U. S. 66, 89 and the Black Canyon Highway from Phoenix bring other hundreds of thousands through the Coconino—giving many visitors their first realization that Arizona is not all desert.

OAK CREEK CANYON—SEDONA. One of the most beautiful areas in the West is popular Oak Creek Canyon and the red-rock mesas which tower over the village of Sedona. Cutting into the Colorado Plateau to a depth of 1200 feet this yearlong trout stream has become a major recreation center for Arizona. Twelve Forest Service campgrounds are set in the 16-mile canyon along with many resort facilities on private land within the National Forest. Oak Creek's outstanding scenic values have been used on the screen for more than twenty major western films. Yet this is a land that all of us can enjoy for personal photography, for fishing, or just relaxed living in the warm Sedona end or higher up toward the cool plateau where the cliffs become white. Popular vista points in this area occur at the top of the canyon just a few miles south of Flagstaff; on Schnebley Hill; and at Cathedral Rock.

SAN FRANCISCO PEAKS. The great sacred mountains to the Hopi Indians, these tallest of Arizona's peaks rise alone from the vast Colorado Plateau to form a majestic landmark for all of northern Arizona. Made up of four cones, they are from west to east: Humphrey Peak (the highest at 12,670 feet), Agassiz Peak, Fremont and Doyle Peaks. They are extinct volcanoes, having been built up by eruptions over a million years, the latest estimated to have been in 876 AD. In an inner basin, sheltered by the peaks, flow a number of snow-fed springs which provide pure water for the mushrooming city of Flagstaff below.

ARIZONA SNOW BOWL. Fourteen miles out of Flagstaff on the west side of San Francisco Peaks is the Arizona Snow Bowl, the state's most popular ski area. Here at an elevation of 9500 feet are a lodge, parking for

500 cars, a 2800-foot Pomalift and two smaller lifts. The ski area, with rental equipment available, operates on weekends and school holidays when snow conditions are favorable.

MOGOLLON RIM. On the south the great Colorado Plateau ends abruptly in an irregular cliff which is 2000 feet high in places—a cliff that swings in a ragged arc for more than a hundred miles through the forests of central Arizona. On top are the Kaibab, Coconino, Sitgreaves and Apache National Forests, part of the big ponderosa pine forest which extends almost unbroken from the Grand Canyon to the Rio Grande. Below the rim are parts of the Coconino, Prescott, and Tonto National Forests as well as the Fort Apache Indian Reservation. Along the top of the rim in pioneer days ran a military wagon road to connect Camp Verde with Fort Apache, and the present rim road follows the same route in many places. In the southern part of the Coconino is Baker Butte, a lookout tower on the highest point of the rim (8200 feet). From here you can get a tremendous view of almost the entire Coconino to the north, and most of the Tonto National Forest to the south. Such a view gives the visitor some idea of how big Arizona's timber country really is.

LAKE COUNTRY. Southeast of Flagstaff on the plateau the Coconino has some 4000 acres of lakes. Some of these bodies of water are natural, some developed, and there are many meadows or parks which were ancient lakebeds in the Ice Age. Nine-mile-long Lake Mary, part of the water system for Flagstaff, is also a popular fishing and boating lake. Mormon Lake is a large shallow body of water which has great variations in size depending on cumulative precipitation over recent years.

SYCAMORE CANYON PRIMITIVE AREA. A beautiful lonely gorge 1300 feet deep has been carved by Sycamore Creek as it drops from the forested plateau into the valley of the Verde River below. This remote white-cliffed canyon is another, steeper Oak Creek, but its rugged terrain and isolation leave it completely without roads or people. Nearly half of this 46,000-acre area, set aside by the Forest Service to preserve the beauties of the wilderness, is in the Coconino National Forest, the balance being in the Kaibab and Prescott National Forests. It may be approached from

below by road out of Clarkdale or by trail from above near Kelsey Springs or Buck Ridge Cabin (both near Turkey Butte). Upper Sycamore Creek is an excellent trout stream for the hardier fishermen willing to hike in.

TIMBER

Within the external boundaries of the Coconino National Forest grow some four billion board feet of commercial timber—enough to build 270,000 five-room houses. Four-fifths of this vast renewable resource is owned by you, the public, the rest being on private lands within the National Forest. The timber is almost pure ponderosa pine, the Southwest's most widespread commercial tree, although very small amounts of Douglas fir, white fir, and limber pine occur at the higher elevations. This timber and the resultant logging, hauling, milling, lumber sales, construction and manufacturing have been a significant part of Arizona's economy for the past half century, largely due to the recognition that timber is a crop capable of being produced forever if we handle our forests wisely. Logging and lumber mills have long provided several hundred jobs in and around the city of Flagstaff; and sales of Coconino National Forest timber bring in almost half a million dollars a year to Uncle Sam. The output of the plateau area is expected to increase with diversification of industry and greater utilization of other-than-sawlog size forest material.

National Forest timber is sold to private logging and mill operators who then cut the logs and haul them out of the woods in accord with good forestry practices. Such practices, required on all Forest Service timber sales, include not cutting too much of the stand, the removal of snags and diseased trees, and providing for slash removal and watershed rehabilitation after logging.

The timber harvesting program on the Coconino National Forest is guided by timber management plans worked out for each major timber producing unit of the forest. These plans set forth the amount of timber that will be cut and the practices that will be employed so that the forest can support commercial logging at a rather constant level of production indefinitely. This is sustained yield timber

production, the goal of good forestry and of all who are interested in conserving our forest resources.

To enhance the timber value of the Coconino, the Forest Service plans more timber access roads, more planting, more thinning and pruning, and greater efforts to develop control measures against fire, forest insects and disease. In short, to reap increased timber crops we must intensify forestry and make more use of the land's potential.

FIRE

Lightning and man-caused forest fires are constant threats to the many values of the Coconino National Forest. In a bad fire year, the Coconino has experienced as many as 99 lightning-started forest fires after one severe storm. To date, scientists have not been able to prevent fire-setting lightning storms. However, results obtained so far by the Forest Service's cooperative research program, Project Skyfire, indicate that in the future it may be possible to prevent some lightning storms through cloud seeding.

Although man does not have the solution to fire-setting lightning storms, he does know that forest fires started through human carelessness or indifference can be stopped. These man-caused forest fires can be prevented only if every man, woman, or child who visits or uses our forests will follow Smokey Bear's fire safety rules:



1. CRUSH OUT YOUR SMOKES!
2. BREAK YOUR MATCHES IN TWO!
3. DROWN YOUR CAMPFIRES!
4. BE CAREFUL WITH EVERY FIRE!



F-482939

• Harvesting timber on the Coconino.



F-491606

• A log train loads up.



F-482949

• Logs in mill pond at Flagstaff.



F-482976

- Lake Mary — part of Flagstaff's water supply.

WATER

The Coconino National Forest is one of the highest water producing areas in Arizona. Not only does the rain and snowfall grow 650,000 acres of commercial timber and provide some of the most attractive forest recreation sites in the Southwest, but water is also produced "for export" to thirsty desert areas through streams and underground flow. An estimated average of some 72 billion gallons a year leaves the National Forest for lower country, much of it helping to irrigate farms, fill livestock tanks, water desert cities, generate power, add to recreation and fishing lakes, and turn the wheels of industry in the booming Southwest. In this rapidly developing but basically dry land, the life-giving nature of water from the mountains is apparent to everyone.

Many years ago Congress recognized the role of forests in our water supplies. By the Act of June 4, 1897, it declared one of the purposes of the National Forests was to secure "favorable conditions of water flow . . ." To achieve this, the Forest Service carefully coordinates the various uses of the National Forests so that an adequate cover of trees, shrubs, grasses and other vegetation is maintained on the land.

Foresters and agriculturists have contended for years that the best place to manage and control water is where it first falls. In large part that is on upstream forested land. It is general knowledge that the humus of the forest floor and the root systems of trees and other plants promote the storage of underground water by aiding infiltration of water into the soil. There is more water-storage capacity underground than in all of our man-made reservoirs above ground. Forests perform two other functions of prime importance to water supplies. First, they reduce erosion, lessen sedimentation, foster soil stability, and thereby enhance the quality of water and contribute much to regularity of flow. Second, they influence the amount of surface runoff and the quantity of stream flow, helping to prevent floods.

Thus watershed management is one of the most important parts of the Forest Service job. Because of this importance, much research has been done to discover how National Forest watersheds can best be handled to improve water yield without serious damage to the soil mantle or other forest values. A large scale pilot application of many of these findings has been undertaken on the Coconino National Forest—Beaver Creek Watershed Project. Using the entire Beaver Creek drainage—a quarter million acres that produce some 10 per cent of the flow of the Verde River—as a series of pilot plots, Forest Service field men are measuring streamflow, changing vegetative types in the various elevations and rainfall areas, studying everything from soil movement to numbers of acorns left per acre for turkey feed. Many years of effort are going into learning costs, know-how, advantages and disadvantages of large scale intense watershed management in the Southwest.



WILDLIFE

The Coconino National Forest is the home of a great variety of wildlife. The main big game animal is the Rocky Mountain mule deer, many thousands of which inhabit the forest, bringing out other thousands of hunters each fall. Also present is a smaller population of Sonoran white-tailed deer and quite a number of turkey. Elk have been reintroduced on the plateau and are doing well, providing many Arizonians the thrill of seeing these great animals in their natural habitat. Several thousand antelope also roam the Coconino, many of them in the parks on the plateau, in pine country of a type which is not usually considered antelope country. Also present are a few black bear and in the lower elevations some javelina.

Small game include the cottontail rabbit, Abert squirrel, Gambel's quail, and mourning dove. Among the furbearers are the badger, beaver, raccoon and a few muskrat. Hunting of all these animals is controlled by the State of Arizona to protect species and to encourage the harvest of surplus animals by the hunting public. Predators and non-game animals include foxes, skunks, cougars or mountain lion, bobcats, coyotes, porcupines and many smaller forest creatures.

Among fly-fishing waters on the Coconino is Oak Creek, particularly the isolated West Fork which can be reached by trail from Highway 89A near Halfway Point. Other beautiful streams also somewhat remote from roads are West Clear Creek, East Clear Creek and Leonard Canyon in the southern end of the forest, and the upper Beaver Creek not far from Happy Jack. The streams running off the San Francisco Peaks are generally too short to provide much fishing, but the lakes on the plateau make up for this. Rainbow trout are stocked in several of these such as Lake Mary, Kinnikinick, Ashurst and Coconino Lakes. Warm water fishing lakes include Stoneman and Long Lake. Also at lower elevation there are bass in the Verde River, which is the forest boundary for many miles along the southwest.

The Forest Service cooperates with the Arizona Game and Fish Department—in habitat improvements, game and range surveys, and



- Elk — another product of the Coconino.

annual hunting plans—to keep wildlife on the National Forest on a sustained yield basis.

RESEARCH

Backing up the Rangers in their day-to-day work of administering the National Forests is Forest Service Research. This is a nationwide system of nine experiment stations plus a world-famed forest products laboratory, all seeking better ways to make use of and renew our forest heritage. Part of this system on the Coconino is the Flagstaff Research Center on the campus of Arizona State College. Here, working with the Forestry School and other departments of the college, a staff of Forest Service scientists specialize in timber, range, and water problems in several of the climatic zones of the Southwest. Under their jurisdiction is the famed Fort Valley Experimental Forest northwest of Flagstaff. This has been a site for many scientific studies in the ponderosa pine type since 1908.

LIVESTOCK GRAZING

A National Forest is more than millions of trees. It is also land which grows other things, among them grass and other forage plants, on thousands of acres well suited to the support of domestic livestock. Some 17,000 cattle and 18,000 sheep graze the ranges of the Coconino under paid permit, mostly during the summer months. These herds provide meat, leather and wool to the national economy as well as a livelihood for more than a hundred Arizona ranch families or firms.

The Coconino is divided into 82 ranch allotments and the management plan for each allotment specifies the kind and number of livestock to be grazed, period of use and how the livestock will be managed to obtain the maximum production of forage. The Forest Service's aim in management of the range is to maintain a balance between available feed and the number of livestock permitted to graze. If the range is overgrazed, the plants are weakened, less forage and meat are produced, and the water-absorbing power of the soil is destroyed.

To insure stability of the livestock industry, it is essential that some forage remain on the ground at the end of the grazing period. Research studies conducted over many years prove that it is necessary to leave as much as 50 percent of the current growth if the plants are to sustain themselves year after year. A



■ Thousands of sheep graze the Coconino.



■ Growing beef on Coconino National Forest range.



■ Swimming hole in Oak Creek Canyon.

healthy ground cover on the range stabilizes the soil, protects the watershed, and assures a continuous supply of forage.

Thus, it takes understanding and cooperation to maintain a productive livestock industry without damaging the public's land.

THE SOUTHWESTERN REGION

To manage National Forest lands in an efficient decentralized manner the Chief Forester in Washington delegates responsibility to 10 regional foresters, each in charge of the National Forests in a region. The Southwestern Region, with headquarters in Albuquerque, New Mexico, includes the 12 National Forests of Arizona and New Mexico as well as Land Utilization Projects in New Mexico, Texas and Oklahoma. The Forest Service personnel of the Southwestern Region, with some twenty million acres of important mountain watersheds in their charge, feel a great responsibility to their employer, the people of the United States.

The Coconino is one of the 148 National Forests throughout the United States, a vital public heritage of productive land totaling over 181,000,000 acres. On the National Forests as a whole, timber sales, grazing fees, land use and power permits bring in more than \$100,000,000 a year to the Federal

Treasury, one-fourth of which is returned to the States for use on schools and roads in the counties which have National Forest land. Another 10 per cent is added to the funds which are appropriated to build roads and trails within the National Forests.

Two guiding principles for the Forest Service, as fixed by Congressional policy and the directives of the Secretary of Agriculture, are sustained yield and multiple use. Sustained yield means using our forest lands without using them up—getting lumber and water and beefsteaks out of our woods and ranges without destroying their continued ability to produce. The basic conservation idea is to use only the interest earned by our inheritance without squandering the capital. Multiple use means putting every area of forest land to work wisely under the harmonious combination of uses which will yield maximum benefits to the most people. Thus, multiple use is the filling of human needs—managing land to regulate streamflow, prevent floods and soil erosion, maintain a proper home for fish and other wildlife, and provide for varied outdoor recreation. Naturally these uses, most of them competing with each other for the available water in the Southwest, conflict to some extent; and yet total management for any one without regard to the others would not be wise or fair to the public. Balancing the various uses for the greatest good to the greatest number of all the people is no small



task. Yet this is the continuing responsibility of the Forest Service.

THE FOREST RANGER

The Coconino National Forest is organized into seven ranger districts, with offices at Flagstaff, Beaver Creek, Sedona, and Winslow. The districts average 250,000 acres in size and are the responsibility of the District Forest Ranger. The Ranger is a key man in the Forest Service, a graduate forester professionally trained in the management of watersheds, timber, grazing lands, wildlife habitat, and forest recreation. Besides being a resource manager, however, he must often be a diplomat, teacher, public relation man, referee or judge—to show the public what their heritage is, and to withstand the pressures from many individuals and groups who want THEIR use of the forest to dominate. He also must be a tight-fisted treasurer with Uncle Sam's money to make sure the parts of Congressional appropriations for which he is responsible go as far as possible in doing the many protection and development jobs being carried out on his district. The Rangers on the Coconino are under the direction of the Forest Supervisor, headquarters in the Post Office Building, Flagstaff. They will do all they can to make your visit to the National Forest a safe, enjoyable one.



• Indian firefighter in action.



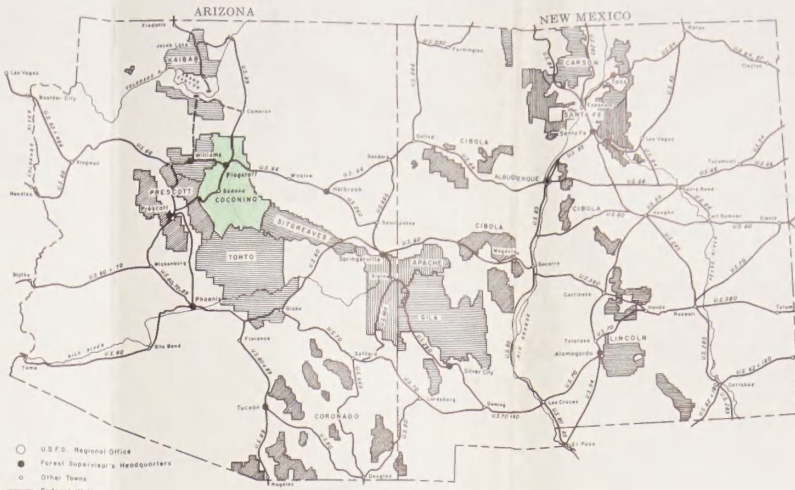
• Horseback riding in Oak Creek Canyon.



• View from Mogollon Rim.

PREVENT FOREST FIRES

NATIONAL FORESTS IN ARIZONA AND NEW MEXICO



RECREATION SITES COCONINO NATIONAL FOREST									
CAMP AND PICNIC GROUNDS			ACTIVITIES				FACILITIES		
Name	Loc.	Elev.	C	P	H	F	Safe Drinking Water	Table & Fire place Units	Camp Trailers Permitted
1. Lake Mary* (1)	D5	6500	X	X	X	X	X	34	X
2. Dairy Springs	E7	6500	X	X	X	X	X	26	X
3. Clint Well	F10	7000	X	X	X	X	X	8	X
4. Kehl Springs	F11	7000	X	X	X	X	X	4	X
5. Arizona Snow Bowl	C3	9000	X	X	X	X	X	5	X
6. Lake View	E6	6500	X	X	X	X	X	17	X
7. Double Springs	E7	6500	X	X	X	X	X	20	X
8. Oak Creek View	C6	6000	X	X	X	X	X	4	X
9. Pine Flat	C6	3500	X	X	X	X	X	53	X
10. Pine Flat Trailer C.	C6	3500	X	X	X	X	X	22	X
11. Slide Rock	C7	3500	X	X	X	X	X	11	X
12. Banjo Bill	C7	3500	X	X	X	X	X	17	X
13. Manzanita	C7	3500	X	X	X	X	X	16	X
14. Cave Springs	C6	3500	X	X	X	X	X	75	X
15. Half Way Point	C7	3500	X	X	X	X	X	3	X
16. Lower Manzanita	C7	3500	X	X	X	X	X	4	X
17. Encinosa	C7	3000	X	X	X	X	X	2	X
18. Midgley Bridge	C7	3500	X	X	X	X	X	2	X
19. Chavez Crossing	C7	3000	X	X	X	X	X	6	X
20. Red Rock	B8	2000	X	X	X	X	X	6	X
21. Ashurst	E6	7000	X	X	X	X	X	19	X
22. Kinnikinnick	F7	7000	X	X	X	X	X	13	X

* Boating
(1) Concessionaire operated - nominal charge.

Code:
C — Camping
P — Picnicking
H — Hunting
F — Fishing

Inquire of local Forest Officer as to length of trailer that sites will accommodate. Trailer drains not permitted. Length of stay at some campgrounds may be limited.



COCONINO NATIONAL FOREST
RECREATION MAP

ARIZONA

1960

Scale

0 1 2 3 4 5 Miles

LEGEND

- Coconino National Forest Bdy
- Other Federal Areas
- Forest Service Special Areas
- U. S. Routes
- State Routes
- Recreation Routes
- Improved Recreation Site
- Live Stream
- Point of Interest
- NATIONAL FOREST LANDS
- Main Highways
- Main Motor Roads
- Secondary Motor Roads
- Important Recreation Trails
- Supervisors Headquarters
- Ranger Station
- Administrative Site
- Forest Service Lookout
- Report Fires Here

Compiled and drafted at Regional Office, Albuquerque, New Mexico 1960